UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

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NOTICE OF ALLOWANCE AND FEE(S) DUE

52835 7590 08/08/2008

HAMRE, SCHUMANN, MUELLER & LARSON, P.C. P.O. BOX 2902

MINNEAPOLIS, MN 55402-0902

EXAMINER STEPHENS, JUANITA DIONNE

ART UNIT PAPER NUMBER

2853

DATE MAILED: 08/08/2008

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/571,876 | 03/15/2006 | Tadashi Yamamoto | 10921.0385USWO | 6870 |

TITLE OF INVENTION: THERMAL PRINTHEAD WITH A RESISTOR LAYER AND METHOD FOR MANUFACTURING SAME

| APPLN. TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE |
|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | NO | \$1440 | \$300 | \$0 | \$1740 | 11/10/2008 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where

| appropriate. All further indicated unless corrects maintenance fee notifica | ed below or directed oth | ng the Patent, advance of nerwise in Block 1, by (| orders and notification (a) specifying a new o | ofn | naintenance fees v pondence address | vill be and/or | mailed to the current (b) indicating a sepa | corre | spondence address as "FEE ADDRESS" for |
|--|--|---|--|--|---|---|--|--|--|
| CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address) | | | | Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission. | | | | | |
| P.O. BOX 2902 | 7590 08/08 IUMANN, MUEL S, MN 55402-0902 | v2008 LER & LARSON | I, P.C. | I her State addr trans | Cer reby certify that the es Postal Service vessed to the Mai smitted to the USP | tificate is Fec(vith sul I Stop TO (57 | of Mailing or Trans s) Transmittal is being ficient postage for fir ISSUE FEE address I) 273-2885, on the d | missi g depe st clas abov ate in | on osited with the United ss mail in an envelope e, or being facsimile dicated below. |
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| | | | | ⊢ | | | | | (Signature) |
| | | | | ᆫ | | | | | (Date) |
| APPLICATION NO. | CATION NO. FILING DATE | | FIRST NAMED INVENTOR | | | ATTORNEY DOCKET NO. | | CC | NFIRMATION NO. |
| 10/571,876 | 03/15/2006 | | Tadashi Yamamo | | | | 921.0385USWO | | 6870 |
| APPLN, TYPE | | AD WITH A RESISTOR | PUBLICATION FEE I | | PREV. PAID ISSU | | TOTAL FEE(S) DUE | | DATE DUE |
| | SMALL ENTITY | SI440 | S300 | DUE | | E PEE | | | |
| nonprovisional EXAM | NO IINER | ART UNIT | CLASS-SUBCLASS | s | \$0 \$1740 | | 11/10/2008 | | |
| STEPHENS, JUA | ANITA DIONNE | 2853 | 347-200000 | | l | | | | |
| "Fee Address" ind PTO/SB/47; Rev 03-0 Number is required. 3. ASSIGNEE NAME A PLEASE NOTE: Uni recordation as set fort | ondence address (or Cha B/122) attached. ication (or "Fee Address 22 or more recent) attach ND RESIDENCE DATA less an assignce is ident h in 37 CFR 3.11. Comp | inge of Correspondence "Indication form and Use of a Customer | | up to rnativ single y or a t attor ill be or typ the pa | 3 registered pater rely, e firm (having as a sgent) and the nam- meys or agents. If printed. ee) stent. If an assign assignment. | memb es of u no nan | er a 2p to p to se is 3 | ocum | ent has been filed for |
| Please check the appropr 4a. The following fee(s) | iate assignee category or | | orinted on the patent): | (Plea | Individual 🗖 C | orporati | on or other private gro | | • |
| ☐ Issue Fee ☐ Publication Fee (N ☐ Advance Order - | o small entity discount p | permitted) | A check is enclor Payment by cred The Director is hoverpayment, to | lit can ereby | | ge the | required fee(s), any de | ficier n exti | ncy, or credit any ra copy of this form). |
| - 11 | s SMALL ENTITY state | as. See 37 CFR 1.27. | | | | | FITY status. See 37 Cl | | |
| NOTE: The Issue Fee an interest as shown by the | d Publication Fee (if req records of the United Sta | uired) will not be accepte tes Patent and Trademarl | ed from anyone other t k Office. | than t | he applicant; a reg | stered | attorney or agent; or th | ne ass | ignee or other party in |
| Authorized Signature | | | | | Date | | | | |
| Typed or printed name | | | | | Registration N | | | | |
| This collection of inform an application. Confiden submitting the complete this form and/or suggesti Box 1450, Alexandria, V Alexandria, Virginia 223 | nation is required by 37 C tiality is governed by 35 d application form to the ions for reducing this but 'irginia 22313-1450. DC it3-1450. | CFR 1.311. The informati U.S.C. 122 and 37 CFR USPTO. Time will var- rden, should be sent to the O NOT SEND FEES OR | on is required to obtain 1.14. This collection y depending upon the the Chief Information C COMPLETED FORM | n or r is est indiv Office AS TO | etain a benefit by imated to take 12 idual case. Any co r, U.S. Patent and D THIS ADDRES: | he pub minuter omment Trader S. SEN | lic which is to file (and to complete, including s on the amount of the lark Office, U.S. Dep D TO: Commissioner | l by t ig gat ne yo artme for Pa | he USPTO to process) hering, preparing, and ou require to complete nt of Commerce, P.O. ttents, P.O. Box 1450, |

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PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Bex 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

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| 10/571,876 | 03/15/2006 | 10921.0385USWO | 6870 | | |
| 52835 75 | 590 08/08/2008 | EXAMINER | | | |
| HAMRE, SCHU | MANN, MUELLER | STEPHENS, JUANITA DIONNE | | | |
| P.O. BOX 2902 | | ART UNIT | PAPER NUMBER | | |
| MINNEAPOLIS, MN 55402-0902 | | | 2952 | | |

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

| Application No. | Applicant(s) |
|---------------------|-----------------|
| 10/571,876 | YAMAMOTO ET AL. |
| Examiner | Art Unit |
| Juanita D. Stephens | 2853 |

| The MAILING DATE of this communication appears on the cover sheet with the correspondence address |
|--|
| All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included |
| herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS |
| NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative |
| of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. |

- This communication is responsive to Amendment after final filed 7/21/2008.
- 2. The allowed claim(s) is/are 1,2,5 and 11.
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) \square All b) ☐ Some* c) ☐ None of the:
 - 1. T Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No. __
 - 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6.

DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1. | Notice of References Cited (PTO-892)
- 2. Notice of Draftperson's Patent Drawing Review (PTO-948)
- Information Disclosure Statements (PTO/SB/08). Paper No./Mail Date
- 4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413), Paper No./Mail Date
- 7.

 Examiner's Amendment/Comment
- 8. T Examiner's Statement of Reasons for Allowance Other _____.

/Juanita D. Stephens/ Primary Examiner Art Unit: 2853